

List of Current Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1 - 11 (Cancelled).

12. (Previously presented) A flow measuring device for determining and/or monitoring the volume, and/or mass, flow rate of a medium flowing through a containment in a streaming direction, comprising:

at least one ultrasonic transducer, which emits and/or receives ultrasonic measuring signals; and

a control/evaluation unit, which determines the volume, and/or mass, flow rate of the medium in the containment on the basis of the ultrasonic measuring signals according to the travel-time-difference principle or according to the Doppler principle, wherein:

associated with said control/evaluation unit is at least one component of high power uptake; and

said control/evaluation unit is embodied such that said at least one component of high power uptake is operated intermittently in a measuring phase and in an idle phase, wherein said at least one component is activated in the measuring phase, while said at least one component has a reduced power uptake, or is turned off, in the idle phase.

13. (Previously presented) The flow measuring device as claimed in claim 12, wherein:

the flow measuring device is a clamp-on flow measuring device or a measuring device which can be placed within the containment.

14. (Previously presented) The flow measuring device as claimed in claim 12, wherein:

said at last one the component of high power uptake is one of: an amplifier, an

analog/digital converter, a microprocessor or a logic chip.

15. (Previously presented) The flow measuring device as claimed in claim 12, further comprising:

at least one component having a switching function, said at least one component having the switching function activates, or deactivates, said at least one component of high power uptake.

16. (Previously presented) The flow measuring device as claimed in claim 14, wherein:

a mechanism for decreasing current consumption is integrated into said at least one component of high power take up.

17. (Previously presented) The flow measuring device as claimed in claim 15, wherein:

said at least one component having a switching function comprises a semiconductor switch.

Claims 18 - 21 (Cancelled).

22. (Previously presented) The flow measuring device as claimed in claim 12, further comprising:

an energy storage element associated with said control/evaluation unit, which is sized such that it can at least store the energy required in the measuring phase.

23. (Previously presented) A flow measuring device for determining and/or monitoring the volume, and/or mass, flow rate of a medium flowing through a containment in a streaming direction, comprising:

at least one ultrasonic transducer, which emits and/or receives ultrasonic measuring signals; and

a control/evaluation unit, which determines the volume, and/or mass, flow rate of the medium in the containment on the basis of the ultrasonic measuring signals

according to the travel-time-difference principle or according to the Doppler principle, wherein:

associated with said control/evaluation unit is at least one component of high power uptake;

said control/evaluation unit is embodied such that said at least one component of high power uptake is operated intermittently in a measuring phase and in an idle phase, wherein said at least one component is activated in the measuring phase, while said at least one component has a reduced power uptake, or is turned off, in the idle phase, and

the time span between two successive measuring, or idle, phases of said at least one component of high power uptake and/or the duration of a measuring phase (t_2) and/or the duration of an idle phase (t_1) of said at least one component of high power uptake is/are predetermined.

24. (Previously presented) A flow measuring device for determining and/or monitoring the volume, and/or mass, flow rate of a medium flowing through a containment in a streaming direction, comprising:

at least one ultrasonic transducer, which emits and/or receives ultrasonic measuring signals; and

a control/evaluation unit, which determines the volume, and/or mass, flow rate of the medium in the containment on the basis of the ultrasonic measuring signals according to the travel-time-difference principle or according to the Doppler principle; and

an input unit, via which the time span between two successive measuring, or idle, phases of said at least one component of high power take up and/or the duration of a measuring phase (t_2) and/or the duration of an idle phase (t_1) of said at least one component of high power take up is predeterminable, wherein:

associated with said control/evaluation unit is at least one component of high power uptake; and

said control/evaluation unit is embodied such that said at least one component of high power uptake is operated intermittently in a measuring phase and in an idle phase, wherein said at least one component is activated in the measuring phase, while

said at least one component has a reduced power uptake, or is turned off, in the idle phase.

25. (Previously presented) A flow measuring device for determining and/or monitoring the volume, and/or mass, flow rate of a medium flowing through a containment in a streaming direction, comprising:

at least one ultrasonic transducer, which emits and/or receives ultrasonic measuring signals; and

a control/evaluation unit, which determines the volume, and/or mass, flow rate of the medium in the containment on the basis of the ultrasonic measuring signals according to the travel-time-difference principle or according to the Doppler principle, wherein:

associated with said control/evaluation unit is at least one component of high power uptake;

said control/evaluation unit is embodied such that said at least one component of high power uptake is operated intermittently in a measuring phase and in an idle phase, wherein said at least one component is activated in the measuring phase, while said at least one component has a reduced power uptake, or is turned off, in the idle phase; and

said control/evaluation unit determines the travel time of the measuring signals on the basis of predetermined system and/or process variables and specifies the time span between two successive measuring, or idle, phases of said at least one component of high power take up and/or the duration of a measuring phase (t_2) and/or the duration of an idle phase (t_1) of said at least one component of high power take up, as a function of the determined travel time.

26. (Previously presented) A flow measuring device for determining and/or monitoring the volume, and/or mass, flow rate of a medium flowing through a containment in a streaming direction, comprising:

at least one ultrasonic transducer, which emits and/or receives ultrasonic measuring signals; and

a control/evaluation unit, which determines the volume, and/or mass, flow rate

of the medium in the containment on the basis of the ultrasonic measuring signals according to the travel-time-difference principle or according to the Doppler principle, wherein:

associated with said control/evaluation unit is at least one component of high power uptake;

said control/evaluation unit is embodied such that said at least one component of high power uptake is operated intermittently in a measuring phase and in an idle phase, wherein said at least one component is activated in the measuring phase, while said at least one component has a reduced power uptake, or is turned off, in the idle phase; and

said control/evaluation unit determines the travel time of the measuring signals on the basis of predetermined system and/or process variables, and said control/evaluation unit predetermines the time span between two successive measuring, or idle, phases of said at least one component of high power take up and/or the duration of a measuring phase (t_2) and/or the duration of an idle phase (t_1) of said at least one component of high power take up, as a function of the determined travel time and as a function of the energy which is available.